

ATTORNEY DOCKET NO. 5923.0001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF : Goecke  
TITLE : Adhesive Tape  
SERIAL NO. : 10/674,108  
FILING DATE : September 29, 2003  
ART UNIT : 1788  
CONFIRMATION NO. : 2438  
ATTORNEY DOCKET NO. : 5923.0001

DECLARATION OF JOSEPH T. MAUSAR UNDER 37 C.F.R. 1.132

I, Joseph T. Mausar, declare that:

1. I am Director of Marketing & Regulatory Affairs of Chemsultants International. My curriculum vitae is attached at Exhibit A.
2. I attended Kansas City Institute of Art in Kansas City, Missouri and graduated with a Bachelor of Fine Arts in Industrial Design. I also attended Baldwin-Wallace College in Cleveland, Ohio and graduated with a Masters in Business Administration.
3. Prior to my present position at Chemsultants International, I was employed at Avery Dennison from 1974 to 1987 in various positions related to pressure sensitive products used in various applications including labels, tapes and graphic materials. I have over 25 years of direct experience in pressure sensitive adhesive products.

Exhibit 8

4. I am a joint inventor on U.S. Patent Application No. 12/231,501 entitled "Multilayered, Composite Proton Exchange Membrane and a Process for Manufacturing the Same."
5. I am being compensated for preparing this declaration at my normal consulting rate.
6. I have reviewed the specification and drawings of the application as filed, and the current claims of the captioned application ("the Subject Application"). I have also reviewed the Office Action dated August 23, 2010 ("the Office Action") in the Subject Application. Copies of the Subject Application and the Office Action are attached at tabs B and C respectively.
7. In my opinion, a person having ordinary skill in the art at the time of the invention disclosed in the Subject Application is one with a background in pressure sensitive adhesive technology and products combined with 3-5 years minimum experience in the physical testing, research or quality assurance areas of pressure sensitive adhesives. I qualify as a person of ordinary skill art.
8. Regarding the rejection under 35 U.S.C. §112, first paragraph, I understand the patent examiner has determined that the term "substantially uniform" in claim 1 is not supported by the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed in 2003, has possession of the claimed invention.
9. On page 4 of the filed application, the applicant describes test samples constructed of a semi-rigid, polyvinyl chloride extruded from a 2 ½ inch diameter NRM extrusion machine under specified

conditions. The paragraph continues that a textured first surface of the extruded polymer layer was achieved.

10. On page 5 of the filed application, the applicant describes tests on the textured samples constructed. 10 replicates of each sample were measured. Results indicate thickness of the material with and without the liner, on average as being 68.4 mil and 65.4 mil respectively.
11. Page 5 further describes "caliper or thickness" determinations of the example test sample described as "textured." The thickness determination is said to have been conducted according to the PSTC-33 method.
12. One skilled in the art would understand, in 2003, the PSTC-33 method included the determination of the thickness (caliper) of the pressure sensitive tape under test wherein the sample under test is placed under a presser foot of between 5 and 16 mm in diameter. This test provides a measurement of thickness of the test surface.
13. The chart on page 7 of the filed application indicates that 10 measurements of the textured samples without liners averaged 65.4 mils with a standard deviation of 0.5 mil. The standard deviation of 0.5 mil as a percentage of the indicated thickness is a 0.76% variation. As 0.5 mil is 1 standard deviation, or 1 Sigma, 66% of all areas of the sample were within 0.5 mil in thickness. At a variation of 1.5 mils, a variation of 2.3%, this variation would equate to 3 Sigma or a 99+% of all areas of the sample were within

1.5 mils in thickness. This indicates the substantial uniformity in thickness of the samples.

14. Figure 1 of the filed application shows a cross sectional view of a tape including an apparently substantially uniform polymeric material (1). At the top of page 4 of the filed application, the polymeric material is said to be preferably but not necessarily textured and having a thickness of about 0.020 to 0.065 inches.
15. Based on the disclosures above, I conclude that the Subject Application shows to one skilled in the art that the applicant possessed the claimed "substantially uniform" but possibly textured polymer layer at the time the application was filed.
16. I have also reviewed the applied prior art: U.S. Patent No. 4,484,574 to DeRusha et al. ("DeRusha"); U.S. Patent No. 3,895,153 to Johnston et al. ("Johnston"); U.S. Patent No. 5,508,084 to Reeves et al. ("Reeves"); U.S. Patent No. 4,248,762 to Hornibrook et al. ("Hornibrook");. Copies of the DeRusha, Johnston, Reeves and Hornibrook are attached at tabs D, E, F and G respectively.
17. Regarding the rejection under 35 U.S.C. §102, DeRusha discloses a foam tape that may be used as a bandage or an athletic wrap. DeRusha, Column 1, lines 6 and 7. DeRusha teaches that the adhesive must securely attach to one side of the foam and releasably adhere to the other side of the foam. DeRusha, Column 3, lines 28 – 30. To achieve this dual adhesivity – strongly adhered on one side and releasably adhered on the other – DeRusha describes rolling a sandwich of foam, adhesive and a

release liner and storing the roll for at least 24 hours allowing the adhesive to set. Afterwards, the release liner is removed resulting in the adhesive being permanently affixed to the front side of the foam layer and releasably adhered to the back side of the foam.

DeRusha, Column 4, lines 6 – 9, 19 – 22 and 29 – 31.

18. DeRusha notes that a “relatively ‘hard’ adhesive is required if the tape is to be reversibly self-rolled. The adhesive should have peel strength (as measured by Pressure Sensitive Tape Council adhesion test method 1 (PSTC-1)) of 250 g/cm width to 850 g/cm width at 1 mil adhesive thickness...” DeRusha, Column 3, lines 40 – 45.
19. One skilled in the art would understand the PSTC-1 test method entails adhering the test sample to a backing and peeling within one minute (known as dwell) at a 180 degree angle.
20. Claim 12 of the Subject Application recites, among other things, an adhesive tape having “a peel adhesion greater than 2.0 lb/in width.”
21. The specification at page 6, first full paragraph, describes the peel adhesion test conducted on the applicant’s test samples. The test describes a modified PSTC-101 method. The test method describes peeling the test sample from the substrate at a 90 degree angle after a dwell time of one hour.
22. I believe the peel adhesion claim language refers to the modified test method described in the specification on page 6.
23. I do not believe that a skilled artisan would interpret the PSTC-1 test described by DeRusha to be equivalent to the test described

by the applicant. Among the reasons are the different test methodologies including a peel angle of 180 degrees in DeRusha and a peel angle of 90 degrees in the Subject Application and a dwell of one minute in DeRusha and one hour in the Subject Application. One skilled in the art would recognize that peel angle and dwell time variations will change measured peel adhesions.

24. For this reason, I disagree with the Office's contention that DeRusha's peel adhesion range teaches the claimed range for an "adhesive tape" having a peel adhesion greater than 2.0 lb/in width.
25. Therefore, it is my opinion that DeRusha fails to disclose each and every limitation of claim 12.
26. Regarding the rejections under 35 U.S.C. §103, Johnston discloses a friction-surface sheet comprised of film of polyethylene terephthalate (reference number 11) bonded on one side to thermoplastic layer (reference number 13) and bonded on the other side to an adhesive layer (reference number 38). Johnston, Column 2, lines 4 – 11 and 44 – 54.
27. Johnston further discloses that an upper, embossed layer (reference number 18) may be bonded atop the thermoplastic layer (reference number 11). Johnston, Column 2, lines 48 – 51. Johnston continues that the upper, embossed layer (reference number 18) should have a Shore A hardness between 60 and 95.
28. Based on my review of Johnston, neither Johnston's figures nor specification discloses a polymer layer (reference number 18) with

Shore A hardness between 60 and 95 attached to the layer of adhesive (reference number 38).

29. Claim 1 of the Subject Application recites, among other things, a “polymer layer having a Shore A Hardness of between about 92 and 100 .... and a layer of adhesive attached to said polymer layer.”
30. I do not believe that a person skilled in the art would read Johnston’s disclosure as describing an adhesive layer attached to a polymer layer.
31. For at least the reason that Johnston does not show the layer of adhesive attached to the polymer layer, it is my opinion that Johnston fails to disclose each and every limitation of claim 1.
32. Claim 11 of the Subject Application recites, among other things, a “polymer layer” and a layer of adhesive with one side “being in direct and uninterrupted contact with the polymer layer...”
33. I do not believe that a person skilled in the art would read Johnston’s disclosure as describing an adhesive layer with one side being in direct and uninterrupted contact with the polymer layer.
34. For at least the reason that Johnston does not show the layer of adhesive in direct and uninterrupted contact with the polymer layer, it is my opinion that Johnston fails to disclose each and every limitation of claim 11.
35. Regarding the rejection under 35 U.S.C. §103 starting at page 7, paragraph 9 of the Office Action, Reeves discloses a mouse pad (1) having a control surface (2). Reeves, Col. 9, lines 3 and 4. Reeves



shows the control surface (2) as including a control layer (19) and describes the control layer as preferably having a "hardness ranging from about 70 durometer to about 140 durometer, measured on the Shore 'A' durometer scale." Reeves, Figures 2 – 9 and Col. 14, lines 25 – 27.

36. One skilled in the art would understand the Shore "A" durometer scale as being one of several scales to objectively assess the hardness of materials. One would also know that the range of the Shore "A" scale is 0 – 100.
37. Durometer is one of several measures of the hardness of a material. Hardness may be defined as a material's resistance to permanent indentation. The term durometer is often used to refer to the measurement, as well as the instrument itself. Durometer is used as a measure of hardness in polymers, elastomers and rubbers.
38. There are several scales of durometer, used for materials with different properties. The two most common scales, using slightly different measurement systems, are the ASTM D2240 type A (Shore A) and type D (Shore D) scales. The A scale is generally for softer plastics, while the D scale is for harder ones. Each scale results in a value between 0 and 100, with higher values indicating a relatively harder material.
39. Durometer, like many other hardness tests, measures the depth of an indentation in the material created by a given force on a standardized indenter. This depth is dependent on the hardness of



the material, its viscoelastic properties, the shape of the indenter, and the duration of the test.

40. ASTM D2240 durometers allows for a measurement of the initial hardness, or the indentation hardness after a given period of time. The basic test requires applying the force in a consistent manner, without shock, and measuring the hardness (depth of the indentation). If a timed hardness is desired, force is applied for the required time and then read.
41. The final value of the hardness depends on the depth of the indenter after it has been applied for 15 seconds on the material. If the indenter penetrates completely through, or 2.54 mm (0.100 inch) or more into a thicker material, the durometer is 0. If it does not penetrate at all, then the durometer is 100.
42. Durometer is a dimensionless quantity, and there is no simple relationship between a material's durometer in one scale, and its durometer in any other scale, or by any other hardness test.
43. On the Shore A Hardness scale a durometer value less than 0 or a value that exceeds 100 is meaningless.
44. Reeves discloses its hardness teaching only once. Specifically, Reeves makes a single mention of a Shore "A" hardness range of about 70 to about 140 at column 14, line 26.
45. The described range exceeds the limits of the scale for more than half of the range described. In other words, only the 30 units of hardness of between 70-100 of the range are possible. The 40 units of hardness above 100, that is from 101-140 Shore A, are simply impossible.

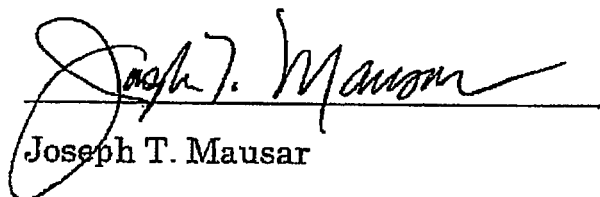
46. I cannot discern any fair teaching of the actual hardness of the control layer from the Reeves specification, and do not believe that a person skilled in the art would be able to.
47. Regarding the rejection under 35 U.S.C. §103, starting at page 9, paragraph 10 of the Office Action, Hornibrook is said to disclose, among others, “a peel adhesion greater than 2.0 lb/in width (Column 5, lines 1-3).”
48. Hornibrook describes the test methodology used to arrive at the recited peel adhesion starting at column 4, line 63. Specifically, Hornibrook recites the test as using the standard Pressure Sensitive Tape Council (PSTC) 4.5 pound (2.04 kg.) roller. The disclosure continues that the peel adhesion was measured at “180° C.” after a “24 hour wetout or ‘dwell’ period.” Column 4, line 68 bridging to column 5, line 1.
49. By convention “180° C” would indicate that the test was conducted at the called for temperature. To the contrary and after study, one skilled in the art would recognize the Celsius identifier “C” to be a typographical error. Instead of temperature, one skilled in the art would recognize that the test was conducted at a 180 degree angle.
50. That temperature was an error is supported by the balance of the Hornibrook specification. For example, where temperatures are clearly recited, they are listed in Fahrenheit with Celsius conversions noted parenthetically. See e.g. column 4, lines 30 and 51; column 6, line 24; column 7, line 1. Additionally, the specification later calls for a test to be conducted at a 180 degree angle. See, column 6, line 31.

51. Peel adhesion changes as peel angle changes. For example, at least one technical handbook notes that test results change depending on peel test angle, when all else is held constant. See, Handbook of Pressure Sensitive Adhesive Technology, 3d Edition, Satas & Associates, 1999, Chapter 5 – Peel Adhesion, page 79.
52. Claim 12 of the Subject Application recites, among other things, an adhesive tape having “a peel adhesion greater than 2.0 lb/in width.”
53. The specification at page 6, first full paragraph, describes the peel adhesion test conducted on the applicant’s test samples. The test describes a modified PSTC-101 method. The modifications include at least peeling the test sample from the substrate at a 90 degree angle after a dwell time of one hour. Page 6, lines 6, 7.
54. I believe the claim peel adhesion language refers to the test as described in the specification on page 6.
55. I do not believe that a skilled artisan would interpret the results of the peel adhesion test described by Hornibrook to be equivalent to the results of the peel adhesion test described by the applicant. Among the reasons are the different test methodologies including applicant’s use of a 90 degree peel angle as opposed to Hornibrook’s 180 degree peel angle.
56. One skilled in the art would expect peel adhesion tested at a 180 degree angle to be different than a peel adhesion tested at a 90 degree angle.

57. For this reason, I disagree with the Office's contention that Hornibrook's peel adhesion teaches the claimed peel adhesion greater than 2.0 lb/in width.
58. Therefore, it is my opinion that Hornibrook fails to disclose each and every limitation of claim 12.

All statements made of my own knowledge are true, and all statements made on information and belief are believed to be true. I have been warned that willful, false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001) and may jeopardize the validity of the application or of any patent issuing thereon.

Date: February 22 2011

  
Joseph T. Mausar